

IN THE CLAIMS:

Kindly replace the claims of record with the following full set of claims:

1. (Currently amended) A variable mirror (100;200;300;400;500;600;740;922) comprising:

[[-]] a fluid chamber (130;230);

[[-]] an optical axis (90) extending through at least a portion of the fluid chamber;

[[-]] a first fluid (110;210) which is at least one of polar and conductive and a second fluid (120;220) in contact over an interface

(140;140';240;240';340;340';440;440';540;540') extending transverse the optical axis, the fluids being substantially immiscible, said first fluid and said second fluid in edge contact with an inner wall of said fluid chamber, said inner wall including a portion being hydrophilic and a portion being hydrophobic, wherein said contact of said first and second fluid with said inner wall is initially in the hydrophobic portion;

[[-]] an interface adjuster (250;250';250'') arranged to alter the configuration of the interface via the electrowetting effect; and

wherein the interface comprises a reflective material.

2. (original) A mirror as claimed in claim 1, wherein the reflective material comprises a metal.

3. (previously presented) A mirror as claimed in claim 1, wherein the reflective material comprises a Metal Liquid – Like Film.

4. (previously presented) A mirror as claimed in claim 1, wherein the reflective material comprises a thin metal layer on an organic polymer film.

5. (Currently amended) A mirror as claimed in claim 1, wherein the interface adjuster (250;250';250'') comprises:

[[-]] a first electrowetting electrode (252) in electrical contact with the first fluid

(110;210);

- at least one second electrowetting electrode (254,254a,254b,255a,255b,255c,255d,255e) located adjacent the interface (140,140°;240,240°;340,340°;440,440°;540,540°); and
- a voltage source (256,256°;256a;256b) for applying a voltage between said first and second electrodes for altering the configuration of said interface.

6. (Currently amended) A mirror as claimed in claim 5, wherein ~~an edge of said interface (140,140°;240,240°;340,340°;440,440°) is constrained by the fluid chamber (130;230)~~, and the second electrowetting electrode (254,254a,254b) is arranged to act on at least a portion of the interface edge.

7. (Currently amended) A mirror as claimed in claim 5, wherein the second electrode (255a,255b,255c,255d,255e) is separated from the interface (540,540°) by at least a portion of said second fluid (220).

8. (Currently amended) An optical device (700;800;900) comprising:

a variable mirror ~~as claimed in claim 1 comprising:~~

[[[-]]] a fluid chamber;

[[[-]]] an optical axis extending through at least a portion of the fluid chamber;

[[[-]]] a first fluid which is at least one of polar and conductive and a second fluid in contact over an interface extending transverse the optical axis, the fluids being substantially immiscible, ~~said first fluid and said second fluid in edge contact with an inner wall of said fluid chamber, said inner wall including a portion being hydrophilic and a portion being hydrophobic, wherein said contact of said first and second fluid with said inner wall is initially in the hydrophobic portion :~~

[[[-]]] an interface adjuster arranged to alter the configuration of the interface via the electrowetting effect; and

~~wherein the interface comprises a reflective material.~~

9. (Currently amended) An optical device as claimed in claim 8, wherein the optical device comprises a laser cavity (800) including said variable mirror, the cavity further including a second mirror.
10. (Currently amended) An optical device as claimed in claim 8, wherein said optical device comprises a Maksutov Cassegrain catadioptric system (700) comprising a primary mirror (740) and a secondary mirror (701), the primary mirror being formed by said variable mirror.
11. (Currently amended) An optical device as claimed in claim 8, wherein the optical device comprises an optical scanning device (900) for scanning an optical record carrier.
12. (Currently amended) A method of manufacturing a variable mirror (100;200;300; 400;500;600;740;922), the method comprising the steps of:
 - [[[-]]] providing a fluid chamber (130;230), with an optical axis (90) extending through at least a portion of the fluid chamber;
 - [[[-]]] providing a first fluid (110;210) which is at least one of polar and conductive and a second fluid (120;220) in contact over an interface (140,140';240,240';340,340'; 440,440';540,540') extending transverse of the optical axis, the fluids being substantially immiscible, and the interface comprising a reflective material; and
 - [[[-]]] providing an interface adjuster (250;250';250'') arranged to alter the configuration of the interface via the electrowetting effect.
13. (Currently amended) A method of operating an optical device (700;800;900), the optical device comprising a variable mirror as claimed in claim 1, the method comprising controllably altering the configuration of the interface (140,140';240, 240';340,340';440,440';540,540') so that the mirror provides the desired reflective properties.